## **WEST Search History**

Hide Items Restore Clear Cancel

DATE: Tuesday, May 10, 2005

Hide? Set Name Query Hit Count				
	DB=PC	SPB,USPT,EPAB,JPAB,DWPI; PLUR=YES; OP=AD	J	
	L10	L9 or 15	. 5	
$\Box$	·L9	L8 and (chicken or chick or gallus)	1	
	L8	(16 or L7) and receptor\$	19	
	L7	toogood-a\$.in.	1	
	L6	thorner-m\$.in.	33	
	L5	L4 and (chick or chicken or gallus)	4	
	L4	L1 adj3 receptor	13	
	L3	L1 (3adj) receptor	0	
	L2	L1 (3dj) receptor	0	
$\Box$	L1	gfr or grhr or (growth hormone-releasing hormone)	2312	

END OF SEARCH HISTORY

## (FILE 'HOME' ENTERED AT 10:27:09 ON 10 MAY 2005)

	FILE 'MEDLINE' ENTERED AT 10:27:15 ON 10 MAY 2005
L1	244 S (GHRH OR GRF) (2A) (RECEPTOR)
L2	1 S L1 AND (CHICKEN OR CHICK OR GALLUS)
L3	0 S (GROWTH HORMONE RELASING HORMONE) (2A) (RECEPTOR)
L4	90 S (GROWTH HORMONE-RELEASING HORMONE) (2A) (RECEPTOR)
L5	90 S (GROWTH HORMONE RELEASING HORMONE) (2A) (RECEPTOR)
L6	90 S L4 OR L5
L7	0 S L6 AND (CHICK OR CHICKEN OR GALLUS)
	FILE 'CAPLUS, BIOSIS' ENTERED AT 10:30:33 ON 10 MAY 2005
L8	562 S L1
L9	562 S (GHRH OR GRF) (2A) (RECEPTOR)
L10	375 S (GROWTH HORMONE RELEASING HORMONE) (2A) (RECEPTOR)
L11	697 S L9 OR L10
L12	7 S L11 AND (CHICKEN OR CHICK OR GALLUS)
L13	6 DUP REM L12 (1 DUPLICATE REMOVED)

ANSWER 3 OF 6 BIOSIS COPYRIGHT (c) 2005 The Thomson Corporation on STN

- AN 2000:191714 BIOSIS
- DN PREV200000191714
- TI Cloning of the chicken growth hormone releasing hormone receptor.
- AU Toogood, A. A. [Reprint author]; Harvey, S.; Thorner, M. O. [Reprint author]; Gaylinn, B. D. [Reprint author]
- CS Department of Internal Medicine, University of Virginia Health System, Charlottesville, VA, USA
- SO Journal of Endocrinology, (March, 2000) Vol. 164, No. Suppl., pp. P185. print.

  Meeting Info.: 19th Joint Meeting of the British Endocrine Societies, with the European Federation of Endocrine Societies. Birmingham, England, UK.

March 13-16, 2000. CODEN: JOENAK. ISSN: 0022-0795.

- DT Conference; (Meeting)
  Conference; Abstract; (Meeting Abstract)
- LA English
- ED Entered STN: 17 May 2000

OMEM Protein Genome Books Nucleotide Search Protein Clear Go for Details Preview/Index History Clipboard Limits all to file Display GenPept Send Range: from |begin I SNP I CDD MMGC lend □ HPRD □ STS Features: to BLink, Domains, 1: XP 418490, Reports PREDICTED: simila...[gi:50732125] Links XP 418490 398 aa linear VRT 28-JUL-2004 LOCUS PREDICTED: similar to Growth hormone-releasing hormone receptor DEFINITION precursor (GHRH receptor) (GRF receptor) (GRFR) [Gallus gallus]. XP 418490 ACCESSION XP 418490.1 GI:50732125 VERSION REFSEQ: accession XM 418490.1 **DBSOURCE** KEYWORDS SOURCE Gallus gallus (red jungle fowl) ORGANISM Gallus gallus Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Archosauria; Aves; Neognathae; Galliformes; Phasianidae; Phasianinae; Gallus. COMMENT MODEL REFSEQ: This record is predicted by automated computational analysis. This record is derived from an annotated genomic sequence (NW 060264) using gene prediction method: GNOMON, supported by EST evidence. Also see: Documentation of NCBI's Annotation Process **FEATURES** Location/Qualifiers 1..398 source /organism="Gallus gallus" /strain="inbred line UCD001" /isolate="#256" /db xref="taxon:9031" /chromosome="2" /sex="female" /common="red jungle fowl" /note="inbred line derived from a wild population of red jungle fowl in Malaysia in the late 1930s, with the possible introgression of a limited amount of White Leghorn genome during its captive breeding history" Protein /product="similar to Growth hormone-releasing hormone receptor precursor (GHRH receptor) (GRF receptor) (GRFR)" 87..344 Region /region\_name="7 transmembrane receptor (Secretin family)" /note="7tm 2" /db\_xref="CDD:pfam00002" 1..398 CDS /gene="LOC420385" /coded by="XM 418490.1:73..1269" /db xref="GeneID:420385" /db xref="InterimID:420385" ORIGIN 1 msyhcvlytl tlavlvagnv hpecdfiael kkkeaeclen seehenatsa givrrnctkk 61 gwsepfpsyh iacpvedeip leegsyfsti kiiytvgysl sitsliiavt vlmafrrlrc 121 prnyihiqlf ftfilkaiai fikdsvlfqe edidhcsfst teckisvvfc hyfmmtnfiw 181 llvealylnc lllsslshgr ryfwwlvlfg wgfptlftfi wilakfyfed tacwdinqds

241 pywwlikgpi iisvgvnfvl finiirillk kldprqinfn nssqyrrlsr stllliplfg 301 thyivfnflp eytslgirly lelcigsfqg fivallycfl nqevtaqdlv myyisirssq //

## <u>Disclaimer | Write to the Help Desk</u> <u>NCBI | NLM | NIH</u>

Feb 9 2005 14:31:10

PubMed Nucleotide Protein. Genome Structure MIMO Books Search Protein Go Clear for Details Limits Preview/Index History Clipboard GenPept Send all to file Display Range: from begin lend SNP COD MINGC CHPRO to STS Features: BLink, Domains, 1: XP 425958. Reports PREDICTED: simila...[gi:50732615] Links 499 aa LOCUS XP 425958 linear VRT 28-JUL-2004 DEFINITION PREDICTED: similar to growth-hormone releasing hormone-like peptide receptor [Gallus gallus]. ACCESSION XP 425958 XP 425958.1 GI:50732615 VERSION **DBSOURCE** REFSEQ: accession XM 425958.1 **KEYWORDS** Gallus gallus (red jungle fowl) SOURCE ORGANISM Gallus gallus Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Archosauria; Aves; Neognathae; Galliformes; Phasianidae; Phasianinae; Gallus. COMMENT MODEL REFSEQ: This record is predicted by automated computational analysis. This record is derived from an annotated genomic sequence (NW 060264) using gene prediction method: GNOMON. Also see: Documentation of NCBI's Annotation Process **FEATURES** Location/Qualifiers source 1..499 /organism="Gallus gallus" /strain="inbred line UCD001" /isolate="#256" /db xref="taxon:9031" /chromosome="2" /sex="female" /common="red jungle fowl" /note="inbred line derived from a wild population of red jungle fowl in Malaysia in the late 1930s, with the possible introgression of a limited amount of White Leghorn genome during its captive breeding history" Protein 1..499 /product="similar to growth-hormone releasing hormone-like peptide receptor" 201..437 Region /region\_name="7 transmembrane receptor (Secretin family)" /note="7tm 2" /db xref="CDD:pfam00002"  $1..\overline{499}$ CDS /gene="LOC428397" /coded by="XM 425958.1:1..1500" /db xref="GeneID: 428397" /db xref="InterimID:428397" ORIGIN 1 mflllkapvf nitkqeheps rvccaleaag yshpkfpihk qlegwkeqfr cfvlegvngg 61 krvlygktvs vvrtqikifs lglqdflpqi tnpklqtgkk scpvcsgnhw nsrlfclcii 121 evvgihpeck ifqqvvkeea lclernesas pdlkgflqrn ctqeaywsep fpsyavacgf 181 degsskgped qksyysafwr vytagyaasv tslitalivf aafrkfhctr nyihmhlfvs 241 filraiavft kdavlfadet mdhclmstva ckaavaffqf silanffwll iegiylqtll 301 lltfvsdkqy vwwfifagwg aptavmltwv ltrlhqqntq cwdddengvv lwiikqpill

361 tvlinfiifi nvirilvhkl ksqegggsns shfvrlakst llliplfgvh yivfaffpes

421 tglearlyie lglgsfqvqs elkkqlckwr yqeylsfthk qgtvsrensp vnyvtqlsll 481 eknspkrkts ayqngvtsv

> <u>Disclaimer | Write to the Help Desk</u> <u>NCBI | NLM | NIH</u>

Feb 9/2005/14:31:10

//

```
AC
     AAW59861;
XX
DΤ
     20-NOV-1998 (first entry)
XX
     Amino acid sequence of the GRF#1 protein.
DΕ
XX
KW
     Chicken; growth hormone releasing hormone; GRF; body fat;
KW
     pituitary adenylate cyclase-activating polypeptide; PACAP;
     growth hormone; GH; pituitary cell; neuropeptide; antibody;
KW
KW
     transgenic animal.
XX
     Gallus sp.
os
XX
PN
     WO9832857-A1.
XX
PD
     30-JUL-1998.
XX
PF
     23-JAN-1998;
                    98WO-CA000033.
XX
     23-JAN-1997;
                    97US-00789329.
PR
XX
     (UYVI-) UNIV VICTORIA INNOVATION & DEV CORP.
PA
XX
PΙ
     Sherwood NGM, Mcrory JE;
XX
     WPI; 1998-427953/36.
DR
DR
     N-PSDB; AAV41891.
XX
PT
     Chicken neuro-peptide genes useful to modify poultry body
composition -
     encode polypeptide(s) which stimulate release of pituitary growth
PT
hormone
     from chicken pituitary cells, useful to reduce poultry fat content.
PT
XX.
PS
     Claim 18; Page 35; 51pp; English.
XX
     This is the amino acid sequence of the alternatively spliced
CC
chicken
     growth hormone releasing hormone #1 (GRF#1), used in conjunction
CC
with the
     pituitary adenylate cyclase-activating polypeptide (PACAP), used in
CC
the
     method of the invention involving the modification of the body
CC
CC
     composition of fat in poultry. The nucleic acids can be used to
produce
CC
     polypeptides which stimulate the release of growth hormone (GH)
from
     chicken pituitary cells e.g. by cultivating the cells of a
CC
transformed
     host and harvesting the polypeptide. GRF and PACAP neuropeptides
CC
from
     other species (e.g. rats) are known to stimulate GH release, and
CC
previous
CC
     studies in humans have shown that GH can increase lean body mass
and
CC
     reduce fat content. The peptides may therefore be useful to control
CC
     growth rates and body composition in poultry, by stimulating GH
     production, poultry with a lower fat content (desirable for both
CC
dietary
     and economic reasons) can be produced. The polypeptides may be
CC
```

```
administered to chickens directly or in compositions and can be
CC
used to
    produce antibodies useful for detection/quantification of
CC
polypeptides
    e.g. after administration. The nucleotide sequences are also useful
CC
to
CC
    produce transgenic animals (especially poultry) expressing elevated
GRF
    and/or PACAP and having enhanced growth rates and improved body
CC
CC
    compositions. They also enable the cloning of related genes from
other
CC
    species
XX
    Sequence 43 AA;
SQ
 Query Match
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 Best Local Similarity
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          22; Conservative
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                                                1; Indels
                                                              0;
Gaps
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           1 SKAYRKLLGQLSARLYLHSLMAK 23
Qу
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7 SKAYRKLLGQLSARNYLHSLMAK 29

Db

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AC
    AAR66188;
DΤ
     25-MAR-2003
                  (revised)
                  (first entry)
DT
     28-JUN-1995
DE
     Sockeye salmon GHRH.
     Sockeye salmon; growth hormone-releasing hormone-like peptide;
KW
GHRH;
     somatoliberin; pituitary adenylate-cyclase activating peptide;
KW
PACAP;
KW
     hormone; transgenic fish.
     Oncorhynchus nerka.
os
XX
PN
     WO9426897-A2.
PD
     24-NOV-1994.
XX
     16-MAY-1994;
                    94WO-CA000280.
PF
XX
PR
     14-MAY-1993;
                   93US-00062472.
XX
PA
     (UYVI-) UNIV VICTORIA INNOVATION & DEV CORP.
PΙ
     Sherwood NG, Parker DB, Mcrory JE, Lescheid DW;
DR
     WPI; 1995-006793/01.
XX
PT
     DNA encoding fish neuro-peptide(s) which enhance the growth of fish
- and
     encode pituitary adenylate cyclase activating polypeptide and
PT
growth
    hormone-releasing hormone-like peptide and their precursors.
PT
XX
PS
     Claim 26; Page 54; 79pp; English.
XX
     Sockeye salmon brain cDNA encoding GHRH-like peptide (AAR66188) and
CC
PACAP
     (AAR66189) was isolated and identified by PCR and RACE. The
CC
isolated DNA
    may be used for production of recombinant fish hormones or for
CC
transgenic
     fish breeding. (Updated on 25-MAR-2003 to correct PN field.)
CC
XX
     Sequence 45 AA;
SQ
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  Query Match
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                                  Pred. No. 3.4e-07;
  Best Local Similarity
                          87.0%;
            20; Conservative
                                 1; Mismatches
                                                   2;
                                                       Indels
                                                                 0;
 Matches
Gaps
       0;
            1 SKAYRKLLGQLSARLYLHSLMAK 23
Qу
              Db
            7 NKAYRKALGQLSARKYLHSLMAK 29
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Sequence 4, Application US/08789329C
; Patent No. 6165755
   GENERAL INFORMATION:
    APPLICANT: SHERWOOD ET AL.
    TITLE OF INVENTION: CHICKEN NEUROPEPTIDE GENE USEFUL
    TITLE OF INVENTION: FOR IMPROVED POULTRY PRODUCTION
    NUMBER OF SEQUENCES: 20
    CORRESPONDENCE ADDRESS:
      ADDRESSEE: Klarquist Sparkman Campbell Leigh &
      ADDRESSEE: Whinston, LLP
      STREET: One World Trade Center
      STREET: 121 S.W. Salmon Street
      STREET: Suite 1600
      CITY: Portland
    STATE: Oregon
      COUNTRY: United States of America
      ZIP: 97204-2988
    COMPUTER READABLE FORM:
      MEDIUM TYPE: Disk, 3-1/2 inch
      COMPUTER: IBM PC compatible
      OPERATING SYSTEM: Windows NT
      SOFTWARE: WordPerfect 7.0 & ASCII
    CURRENT APPLICATION DATA:
      APPLICATION NUMBER: US/08/789,329C
      FILING DATE: 01/23/97
      CLASSIFICATION: 435
    PRIOR APPLICATION DATA:
      APPLICATION NUMBER:
      FILING DATE:
    ATTORNEY/AGENT INFORMATION:
      NAME: Earp, David J.
      REGISTRATION NUMBER:
                           41,401
      REFERENCE/DOCKET NUMBER: 2847-46468/DJE
    TELECOMMUNICATION INFORMATION:
      TELEPHONE: (503) 226-7391
      TELEFAX: (503) 228-9446
  INFORMATION FOR SEQ ID NO: 4:
    SEQUENCE CHARACTERISTICS:
      LENGTH: 46 aa
      TYPE: amino acid
      STRANDEDNESS: single
      TOPOLOGY: linear
US-08-789-329C-4
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                         93.7%; Score 104; DB 3; Length 46;
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           22; Conservative
                               0; Mismatches
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 Matches
                                                1;
                                                     Indels
Gaps
           1 SKAYRKLLGQLSARLYLHSLMAK 23
Qу
             Db
           7 SKAYRKLLGQLSARNYLHSLMAK 29
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ID
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                   STANDARD;
                                  PRT;
                                       175 AA.
AC
     P41534;
     01-NOV-1995 (Rel. 32, Created)
DΤ
     15-JUL-1998 (Rel. 36, Last sequence update)
DT
     25-JAN-2005 (Rel. 46, Last annotation update)
DΤ
     Glucagon-family neuropeptides precursor [Contains: Growth hormone-
DE
     releasing factor 1-46 (GRF) (Growth hormone-releasing hormone)
DΕ
(GHRH);
DE
     Pituitary adenylate cyclase activating polypeptide-27 (PACAP-27)
     (PACAP27); Pituitary adenylate cyclase activating polypeptide-38
DE
DE
     (PACAP-38) (PACAP38)].
    Name=ADCYAP1;
GN
     Gallus gallus (Chicken).
os
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OC
OC
     Archosauria; Aves; Neognathae; Galliformes; Phasianidae;
Phasianinae;
OC
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OX
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RN
     [1]
RP
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    MEDLINE=97174314; PubMed=9022048;
RX
    McRory J.E., Parker R.L., Sherwood N.M.;
RA
     "Expression and alternative processing of a chicken gene encoding
RT
both
     growth hormone-releasing hormone and pituitary adenylate cyclase-
RT
     activating polypeptide.";
RT
RL
     DNA Cell Biol. 16:95-102(1997).
RN
     [2]
RP
     SEQUENCE OF 131-168.
     Yasuhara T., Mizuno K., Somogyvari-Vigh A., Komaki G., Arimura A.;
RA
RT
     "Isolation and primary structure of chicken PACAP.";
     Regul. Pept. 37:326-326(1992).
RL
     -!- FUNCTION: Primary role of GRF is to release GH from the
CC
pituitary.
CC
    -!- FUNCTION: PACAP plays pivotal roles as a neurotransmitter
and/or a
CC
        neuromodulator.
    -!- SUBCELLULAR LOCATION: Secreted.
CC
CC
     -!- ALTERNATIVE PRODUCTS:
CC
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CC
        Name=GRF 1-46;
CC
          IsoId=P41534-1; Sequence=Displayed;
CC
        Name=GRF 1-43;
CC
          IsoId=P41534-2; Sequence=VSP 001760;
CC
        Name=GRF 33-46;
CC
          IsoId=P41534-3; Sequence=VSP 001759;
CC
    -!- SIMILARITY: Belongs to the glucagon family.
CC
   This SWISS-PROT entry is copyright. It is produced through a
CC
collaboration
    between the Swiss Institute of Bioinformatics and the EMBL
CC
outstation -
     the European Bioinformatics Institute. There are no restrictions
CC
on its
    use by non-profit institutions as long as its content is in
CC
no
    modified and this statement is not removed. Usage by and for
CC
```

commercial

```
entities requires a license agreement (See http://www.isb-
sib.ch/announce/
    or send an email to license@isb-sib.ch).
CC
CC
______
DR
     EMBL; U71183; AAB51200.1; -.
DR
     EMBL; U71184; AAB51201.1; -.
     EMBL; U71185; AAB51202.1; -.
DR
    HSSP; P18509; 1GEA.
DR
     InterPro; IPR000532; Glucagon.
DR
     Pfam; PF00123; Hormone 2; 2.
DR
     PRINTS; PR00275; GLUCAGON.
DR
     PROSITE; PS00260; GLUCAGON; 2.
DR
     Alternative splicing; Amidation; Cleavage on pair of basic
KW
residues;
     Direct protein sequencing; Glucagon family; Hormone; Signal.
KW
FT
     SIGNAL
                 1
                        23
                                 Potential.
FT
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                 24
                        80
                 83
                       128
FT
     PEPTIDE
                                 Growth hormone-releasing factor 1-46.
\mathbf{FT}
     PEPTIDE
                131
                       157
                                 Pituitary adenylate cyclase activating
                                 polypeptide-27.
FT
FT
     PEPTIDE
                131
                       168
                                 Pituitary adenylate cyclase activating
FT
                                 polypeptide-38.
FT
     PROPEP
                172
                       175
                       157
                                 Leucine amide (G-158 provides amide
FT
    MOD RES
                157
FT
                                 group).
FT
    MOD RES
                168
                       168
                                 Lysine amide (G-169 provides amide
FT
                                 group).
                                 RHADGIFSKAYRKLLGQLSARNYLHSLMAKRVG -> S
FT
    VARSPLIC
                 82
                       114
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FT
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FT
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FT
                                 /FTId=VSP 001760.
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 Best Local Similarity 95.7%; Pred. No. 2.1e-08;
                             0; Mismatches
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           1 SKAYRKLLGQLSARLYLHSLMAK 23
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Db
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US-08-062-472B-6
; Sequence 6, Application US/08062472B
; Patent No. 5695954
   GENERAL INFORMATION:
     APPLICANT: Sherwood, Nancy G M
     APPLICANT: Parker, David B
APPLICANT: McRory, John E
     APPLICANT: Lescheid, David W
     TITLE OF INVENTION: DNA ENCODING TWO FISH NEUROPEPTIDES
     NUMBER OF SEQUENCES: 49
     CURRENT APPLICATION DATA:
       APPLICATION NUMBER: US/08/062,472B
       FILING DATE: 14-MAY-1993
  INFORMATION FOR SEQ ID NO: 6:
    SEQUENCE CHARACTERISTICS:
      LENGTH: 173 amino acids
       TYPE: amino acid
       STRANDEDNESS: single
       TOPOLOGY: linear
     MOLECULE TYPE: peptide
US-08-062-472B-6
  Query Match 87.4%; Score 97; DB 1; Length 173; Best Local Similarity 87.0%; Pred. No. 1.6e-07; Matches 20; Conservative 1; Mismatches 2; Indels
 ·Query Match
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        0;
Gaps
             1 SKAYRKLLGQLSARLYLHSLMAK 23
Qу
               Db
            88 NKAYRKALGQLSARKYLHSLMAK 110
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```
S34767
neuropeptides precursor [similarity] - sockeye salmon
N; Contains: growth hormone-releasing hormone; pituitary adenylate
cyclase-activating polypeptide
C; Species: Oncorhynchus nerka (sockeye salmon)
C;Date: 06-Jan-1995 #sequence revision 06-Jan-1995 #text change 09-Jul-
2004
C; Accession: S34767; S34766
R; Parker, D.B.; Coe, I.R.; Dixon, G.H.; Sherwood, N.M.
Eur. J. Biochem. 215, 439-448, 1993
A; Title: Two salmon neuropeptides encoded by one brain cDNA are
structurally related to members of the glucagon superfamily.
A; Reference number: S34766; MUID: 93345532; PMID: 8344311
A; Accession: S34767
A; Molecule type: mRNA
A; Residues: 1-173 < PAR1>
A; Cross-references: UNIPROT: P41585; EMBL: X73233; NID: q396194;
PIDN:CAA51705.1; PID:g396195
A; Experimental source: clones SS/PCR 4 and SS/RACE 2
A; Accession: S34766
A; Molecule type: mRNA
A; Residues: 1-21, 'S', 23-60, 'P', 62-77, 'G', 79-121, 'T', 123-164, 'N', 166-
170, 'G', 172-173 < PAR2>
A;Cross-references: EMBL:X73233; NID:g396194; PIDN:CAA51705.1;
PID: q396195
A; Experimental source: clones SS/PCR 5 and SS/RACE 7
A; Note: the GenBank entry ONNEUR, release 117.0, has ambiguous
nucleotides for the positions where these clones differ and translates
the corresponding residues with 'X'
C; Superfamily: glucagon
C; Keywords: amidated carboxyl end; duplication; neuropeptide
F;1-21/Domain: signal sequence #status predicted <SIG>
F;82-126/Product: growth hormone-releasing hormone #status predicted
F;129-166/Product: pituitary adenylate cyclase-activating polypeptide
#status predicted <PAP>
F;166/Modified site: amidated carboxyl end (Lys) (in mature form from
following glycine) #status predicted
  Query Match
                          87.4%; Score 97; DB 2; Length 173;
  Best Local Similarity 87.0%; Pred. No. 3.9e-08;
 Matches
           20; Conservative
                                 1; Mismatches
                                                  2; Indels
                                                                  0;
Gaps
        0;
Qу
            1 SKAYRKLLGQLSARLYLHSLMAK 23
              Db
           88 NKAYRKALGQLSARKYLHSLMAK 110
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                   STANDARD;
                                 PRT; 173 AA.
AC
    P41585;
     01-NOV-1995 (Rel. 32, Created)
DT
     01-NOV-1995 (Rel. 32, Last sequence update)
DT
     25-OCT-2004 (Rel. 45, Last annotation update)
DT
DE
     Glucagon-family neuropeptides precursor [Contains: Growth hormone-
DE
     releasing factor (GRF) (Growth hormone-releasing hormone) (GHRH);
DE
     Pituitary adenylate cyclase activating polypeptide (PACAP)].
OS
    Oncorhynchus nerka (Sockeye salmon).
OC
    Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC
    Actinopterygii; Neopterygii; Teleostei; Euteleostei;
     Protacanthopterygii; Salmoniformes; Salmonidae; Oncorhynchus.
OC
OX
    NCBI TaxID=8023;
RN
     [1]
RP
     SEQUENCE FROM N.A., AND ALTERNATIVE SPLICING.
RC
    TISSUE=Brain;
    MEDLINE=93345532; PubMed=8344311;
RX
RA
    Parker D.B., Coe I.R., Dixon G.H., Sherwood N.M.;
RT
     "Two salmon neuropeptides encoded by one brain cDNA are
structurally
    related to members of the glucagon superfamily.";
RT
    Eur. J. Biochem. 215:439-448(1993).
RL
    -!- FUNCTION: Primary role of GHRH is to release GH from the
CC
CC
        pituitary.
CC
    -!- FUNCTION: PACAP plays pivotal roles as a neurotransmitter
and/or a
CC
        neuromodulator.
    -!- SUBCELLULAR LOCATION: Secreted.
CC
CC
    -!- ALTERNATIVE PRODUCTS:
        Event=Alternative splicing; Named isoforms=2;
CC
CC
        Name=Long;
          IsoId=P41585-1; Sequence=Displayed;
CC
CC
        Name=Short;
          IsoId=P41585-2; Sequence=VSP 001762, VSP 001763;
CC
CC
          Note=Lacks the GHRH-like sequence;
CC
    -!- POLYMORPHISM: Four clones were identified that had nucleotide
CC
        differences.
    -!- SIMILARITY: Belongs to the glucagon family.
CC
CC
_____
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    PIR; S34767; S34767.
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    HSSP; P18509; 1GEA.
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